

10/539780

Rec'd PCT/PTO 20 JUN 2005

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
8 July 2004 (08.07.2004)

PCT

(10) International Publication Number  
WO 2004/057900 A1

- (51) International Patent Classification<sup>7</sup>: H04Q 7/38 (74) Agents: DRIVER, Virginia, Rozanne et al.; Page White & Farrer, 54 Doughty Street, London WC1N 2LS (GB).
- (21) International Application Number: PCT/IB2002/005573 (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.
- (22) International Filing Date: 20 December 2002 (20.12.2002) (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SI, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- (25) Filing Language: English
- (26) Publication Language: English
- (71) Applicant (*for all designated States except US*): NOKIA CORPORATION [FI/FI]; Keilalahdentie 4, FIN-02150 Espoo (FI).
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): SALMENKAITA, Matti [FI/ES]; Urb. Casinomar Portal 3 bajo E, E-29630 Benalmadena Costa (ES). GIMENEZ, Jose [ES/ES]; Avda. Palma de Mallorca 42, E-29620 Torremolinos (ES). TAPIA, Pablo [ES/ES]; C/ Martinez Campos 15, Esc., Dra. 1<sup>o</sup>1, E-29001 Malaga (ES).
- Published:  
— with international search report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

WO 2004/057900 A1

(54) Title: METHOD AND SYSTEM FOR ALLOCATING CHANNELS IN A CELLULAR COMMUNICATION NETWORK

(57) Abstract: A method of channel allocation in a cellular communication network wherein a radio channel is to be selected for establishment of a connection in an environment with potentially interfering signals, the method comprising: establishing a radio channel candidate; processing the radio channel candidate with potentially interfering signals and calculating a carrier to interference ratio (CIR) for the selected carrier frequency of the radio channel candidate and the potentially interfering signals; calculating a dominant interference ratio (DIR) being the ratio of the strongest potentially interfering signal with respect to the other potentially interfering signals; and using criteria based on at least one of the dominant interference ratio and the carrier to interference ratio in a selection process for selecting a channel for the connection to be established.

BEST AVAILABLE COPY